

Review of Product Stewardship Programs

Prepared for: Product Stewardship Stakeholder Workgroup

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Introduction

This paper provides a brief summary of common elements of product stewardship programs, based on a subset of programs. The programs reviewed represent both international and U.S. examples, and cover a wide variety of product areas from electronics to paint to mercury automotive switches. More detailed program-by-program information is included in Appendix A.1, Voluntary Product Stewardship Programs, and Appendix A.2, Legislated Product Stewardship Programs.

Each product stewardship program is summarized based on the following categories:

- Producer-funded government administrative fee
- Financing
- Roles and responsibilities
- Convenience standards
- Performance goals and measures
- Level playing field
- Lifecycle impacts/product design improvements
- Disposal ban

Appendix B includes a more complete listing of product stewardship programs by product category that are currently in place. The information in Appendix B is intended to provide a larger context for the information presented in Appendices A.1 and A.2 and in this paper.

Please note: Any statements or generalizations made about product stewardship programs in this paper refer *only* to those programs listed in Appendices A.1 and A.2 and not to all product stewardship programs as a whole.

Producer-Funded Government Administrative Fee

Some legislated product stewardship programs require producers to pay an annual fee to governments to offset the costs of government administration, such as registering producers and approving plans.

These fees take two forms:

- A flat fee paid by each individual producer or stewardship organization
- A sliding fee (usually based on market share) paid by each individual producer

For example, Maine's electronics program requires manufacturers to pay an annual registration fee of \$3,000 to help support the state's oversight of the program. Minnesota's annual registration fee is \$2,500. Similarly, Oregon's paint program requires manufacturers or a stewardship organization to pay \$10,000 each year to help offset costs of plan approval, oversight, and enforcement (this fee was set based on the expectation that a single plan would be submitted).

Producers participating in both Washington and Oregon's electronics programs pay an annual registration fee based on a sliding scale according to sales of covered products, or market share. Producers are placed in an administrative tier with an associated fee. Producers with a higher market share pay a higher fee. In the Washington program, fees range from \$8 to \$40,084; in Oregon they range from \$40 to \$15,000.

Some programs do not require administrative fees to support government administrative costs. These costs may be covered by things such as general solid waste disposal fees or taxes.

Financing

Most product stewardship programs generally use one of two different types of financing for product stewardship programs:

- Cost internalization
- Eco-fees

In cost internalization, producers are responsible for the costs of establishing a collection, transportation, and recycling system. The costs of the system are incorporated into the cost of doing business on the part of the manufacturer and may or may not be passed on in the price of the product; the costs are invisible to the consumer or retailer.

All of the U.S. electronics programs examined in this paper use cost internalization, as does Maine's mercury lamp program and California's cell phone program. Most of the voluntary programs examined here, including those for mercury switches, rechargeable batteries, and thermostats, are also cost internalization.

An eco-fee is a producer-designated amount paid on each product by either the producer or the retailer to a stewardship organization. The fee may or may not be visible to the consumer.

Oregon's paint program, for example, requires producers to pay a fee to a stewardship organization for each container of paint it sells in the state. The fee must be added to the cost of all paint sold to Oregon retailers, who then add the fee to the purchase price of paint. The stewardship organization determines the fee, but the fee is approved by the state through the submittal of the stewardship organization's annual plan. Alberta's product stewardship program also allows stewardship organizations to impose surcharges, but regulations define the maximum amount that can be charged for each product type.

However, not all product stewardship programs fit neatly into one of these two categories. The EU's Waste Electrical and Electronic Equipment (WEEE) directive employs a hybrid approach in which producers must internalize the costs for new products (those made after August 13, 2005), but may charge a fee for historical waste for a certain period (8-10 years, depending on the product category). The voluntary Carpet America Recovery Effort (CARE) doesn't have a financing mechanism at all, since the program is limited and currently does not address funding a collection, transportation, and recycling system.

Roles and Responsibilities

Product stewardship programs include a variety of roles and responsibilities for a variety of parties. Here we focus on how the following roles and responsibilities are distributed among producers, retailers, and government:

- Collection, transportation, and recycling
- Program financing
- Registration
- Plans and reports
- Education and outreach to consumers
- Compliance and enforcement

Producers

In most product stewardship programs, producers are responsible for the cost of transportation and recycling. Many legislated product stewardship programs also assign responsibility for collection costs to producers, with some exceptions. In Maine's electronics program, for instance, municipalities pay for collection. EU's WEEE directive also does not assign collection costs to producers.

Another commonality in almost all programs is producer registration, either with the government or with a product stewardship organization. In most cases, producers or stewardship organizations must also submit an annual plan and report to government.

Those programs where there is less government administrative involvement also tend to assign producers responsibility for education and outreach to consumers.

Retailers

The most common role for retailers is to ensure that they sell products that are in compliance with various product stewardship laws. In most instances, retailers must check compliance lists maintained either by government or by stewardship organizations to verify producer compliance.

Another common responsibility is providing education to consumers about recycling opportunities, either by displaying information in stores or providing written material directly to customers at the point of sale.

Retailers appear to have less of a role in voluntary programs when compared to their legislative counterparts. In both instances, however, retailers have a potential role as collection sites. EU's WEEE directive, for instance, requires retailers to allow customers to return an old product for recycling when they make a new purchase of the same product.

There are a few product stewardship programs that deviate from norm of producers bearing the cost of the system and instead hold retailers responsible. In California's cell phone program, for example, retailers pay for the cost of collection, transportation, and recycling.

Government

Legislated product stewardship programs have several common responsibilities for government. First, governments usually register producers, except in those instances where producers register with stewardship organizations. In some cases, such as Washington's and Minnesota's electronics programs, government also registers collectors, transporters, and/or recyclers.

Second, governments are typically tasked with reviewing and approving plans submitted by producers or stewardship organizations detailing their systems for collection, transportation, and/or recycling. Governments also generally review and approve annual reports submitted by producers or stewardship programs.

Third, programs with more government oversight generally task government with educating consumers. Even programs that have education requirements for producers or stewardship organizations tend to give governments a role in this area.

Lastly, governments have a large role in compliance and enforcement of programs. This includes maintaining compliance lists, ensuring that all manufacturers selling their products into a program jurisdiction are participating in the system, as well as issuing penalties against producers and stewardship organizations (and in some instances retailers) as appropriate.

Governments have less of a direct role in the voluntary programs examined. In Carpet America Recovery Effort (CARE) and End of Life Vehicle Solutions Corp. (ELVS), for example, governments help evaluate the program. Furthermore, governments are a signatory to the memorandum of understanding that created CARE. Government has no direct role in the Rechargeable Battery Recycling Corp. (RBRC) or the Thermostat Recycling Corp. (TRC).

Convenience Standards

Some product stewardship programs include convenience standards, or minimum requirements for ensuring that consumers have adequate access to collection opportunities. None of the voluntary programs have convenience standards, while a little over half of the legislated programs have convenience standards.

Most convenience standards are vague. The most common terms used to define convenience include:

- Available
- Accessible
- Reasonable
- Open at adequate frequency

Some convenience standards go a little further to require statewide collection or collection in both rural and urban areas.

Washington and Oregon's electronics programs have a more specific convenience standard, defined as having service in every county and a collection site in each city with a population of 10,000 or more.

Performance Goals and Measures

Half of the voluntary programs and half of the legislated programs include performance goals. The most common measures include collection targets:

- By sales
 - For example, in Minnesota's electronics program, manufacturers must currently recycle an amount equal to 80% of what they sold by weight in the previous year.
- Per capita
 - For example, EU's WEEE directive initially set a collection rate of 4 kg (8.8 lbs) per person from private households.

- By recovery rate
 - For example, Carpet America Recovery Effort (CARE)'s goal is to divert 40% of waste carpet from landfills in 2012. British Columbia's product stewardship program requires that plans meet 75% or higher recovery rate as established by government.

In Alberta and Ontario's programs, instead of outlining a specific target in the law, they stipulate that recovery targets need to be addressed in a producer or stewardship organization's plan.

Level Playing Field

Level playing field refers to methods that ensure that all producers contribute to or participate in a product stewardship program. All of the legislated product stewardship programs examined ensure a level playing field through one or both of the following:

- Sales restrictions that prohibit producers from selling covered products unless they are registered or in compliance with the law
- Fines for noncompliance

Exceptions include Alberta's product stewardship program, where retailers – rather than producers – must register in order to sell covered products. The EU's WEEE directive also has a slightly different requirement for producers: producers must provide a guarantee to Member States that waste management of the product will be financed before placing that product on the market. This could include participating in a stewardship organization, paying recycling insurance, or having a designated bank account.

Voluntary programs tend to not have vigorous requirements in this area. By participating in the Rechargeable Battery Recycling Corp. (RBBC) and the Thermostat Recycling Corp., producers meet the requirements of certain states that have legislative requirements in these areas.

Lifecycle Impacts/Design Improvements

About half of the legislated programs include provisions concerning lifecycle impacts or design improvements. The most common provisions address:

- Reuse (either stating a preference for reuse or giving reuse priority)
- Toxics (reporting requirements or meeting certain standards)
- Design for reuse/recycling

Only British Columbia's product stewardship program includes a broader requirement that producers, in their plans, address eliminating or reducing environmental impacts of products throughout the entire lifecycle.

Voluntary programs don't address lifecycle impacts directly. Automobile manufacturers, however, did voluntarily phase out mercury automotive switches as of model year 2002.

Disposal Ban

Only one legislated program – Oregon's electronics recycling program – of all the legislated programs examined included a disposal ban of covered products in the law itself. In five of the other programs, a ban either already existed or was established after the product stewardship law was passed. The remaining half of the legislated programs do not have disposal bans on the products covered in their programs.

Also of note, there are disposal bans in place in some states for covered products addressed in three of the four voluntary programs.

Sources

The following reports, laws, and websites were referenced in the writing of this paper.

Reports

Association of State and Territorial Solid Waste Management Officials (ASTSWMO). *ASTSWMO Product Stewardship Framework Policy Document*. December 2009.

http://www.astswmo.org/files/resources/sustainability/ASTSWMO_Product_Stewardship_Framework_Policy_Document-Dec2009.pdf

Chris Van Rossem, Naoko Tojo, and Thomas Lindqvist of the International Institute for Industrial Environmental Economics. Commissioned by Greenpeace International, Friends of the Earth Europe, and the European Environmental Bureau (EEB). *Extended Producer Responsibility: An Examination of Its Impact on Innovation and Greening Products*. September 2006. <http://www.greenpeace.org/eu-unit/press-centre/reports/extendend-producer-responsibil>.

Computer TakeBack Campaign. Brief Comparison of State Laws on Electronics Recycling. September 2, 2009. http://www.computertakeback.com/legislation/Compare_state_laws_chart.pdf.

Maine Dept. of Environmental Protection. *Report on Maine's Household E-waste Recycling Program*. January 15, 2010.

<http://www.maine.gov/dep/rwm/publications/legislative-reports/pdf/2010ewastereportfinal.pdf>

Northwest Product Stewardship Council. *Product Stewardship in Canada*. October 2009.

http://www.productstewardship.net/PDFs/policies/NWPSCCanadianPSPPrograms10_09.pdf.

Voluntary Product Stewardship Programs

Carpet America Recovery Effort (CARE) Website: <http://www.carpetrecovery.org>

End of Life Vehicle Solutions Corp. (ELVS) Website: <http://www.elvsolutions.org>

Rechargeable Battery Recycling Corp. (RBRC) Website: <http://www.call2recycle.org>

Thermostat Recycling Corp. (TRC) Website: <http://www.thermostat-recycle.org>

Legislated Product Stewardship Programs

Oregon's Electronics Program

- Program website: <http://www.oregonecycles.org>
- Link to law: <http://www.leg.state.or.us/ors/459a.html>

Washington's Electronics Program

- Program website: <http://www.ecy.wa.gov/programs/swfa/eproductrecycle>
- Link to law: <http://apps.leg.wa.gov/RCW/default.aspx?cite=70.95N&full=true>

Maine's Electronics Program

- Program website: <http://www.maine.gov/dep/rwm/ewaste>
- Link to law: <http://www.mainelegislature.org/legis/statutes/38/title38sec1610.html>

Minnesota's Electronics Program

- Program website: <http://www.pca.state.mn.us/oea/stewardship/electronics-law.cfm>
- Link to law: <https://www.revisor.leg.state.mn.us/statutes/?id=115A&view=chapter#stat.115A.1310>

Texas' Electronics Program

- Program website: <http://www.tceq.state.tx.us/assistance/P2Recycle/electronics/computer-recycling.html>
- Link to law: <http://www.capitol.state.tx.us/tlodocs/80R/billtext/html/HB02714F.htm>

British Columbia's Product Stewardship Program

- Program website: <http://www.env.gov.bc.ca/epd/recycling/index.htm>
- Link to law: http://www.bclaws.ca/Recon/document/freeside/--%20E%20--/Environmental%20Management%20Act%20%20SBC%202003%20%20c.%2053/05_Regulation/s/43_449_2004%20Recycling%20Regulation/449_2004.xml

Ontario's Product Stewardship Program

- Program website: <http://www.ene.gov.on.ca/en/land/wda/index.php>
- Link to law: <http://www.wdo.ca/files/domain4116/Waste%20Diversion%20Act.pdf>

Alberta's Product Stewardship Program

- Program website: <http://www.albertarecycling.ca>
- Link to law: <http://www.canlii.org/en/ab/laws/regu/alta-reg-93-2004/latest/alta-reg-93-2004.html>

Oregon's Paint Program

- Program website: <http://www.deq.state.or.us/lq/sw/prodstewardship/paint.htm>
- Link to law: <http://www.leg.state.or.us/09reg/measpdf/hb3000.dir/hb3037.en.pdf>

Maine's Mercury-Added Lamps Program

- Program website: <http://www.maine.gov/dep/mercury/index.htm>
- Link to law: http://www.mainelegislature.org/legis/bills/bills_124th/billtexts/HP067501.asp

California's Cell Phones Program

- Program website: <http://www.dtsc.ca.gov/HazardousWaste/EWaste/index.cfm>
- Link to law: http://www.leginfo.ca.gov/pub/03-04/bill/asm/ab_2901-2950/ab_2901_bill_20040929_chaptered.pdf

EU's Electrical and Electronic Equipment Directive (WEEE)

- Program website: http://ec.europa.eu/environment/waste/weee/index_en.htm
- Link to law: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0096:EN:NOT>